

WHAT IS CLAIMED IS:

1 1. A method for manufacturing an armrest bun, the method
2 comprising:

3 configuring a pour tool to include a cavity and a fixture, the fixture
4 configured to receive a support substrate;

5 positioning the support substrate in the fixture such that a portion of
6 the support substrate is in communication with the cavity; and

7 pouring a foam material into the cavity, the foam material sufficient
8 to bond to the portion of the support substrate in communication with the cavity.

1 2. The method of claim 1 further comprising defining the cavity
2 to include a curvature, the curvature matching a curvature in an armrest cavity, the
3 poured foam shaped by the cavity curvature so that the foam forms to match the
4 armrest cavity curvature.

1 3. The method of claim 1 further comprising defining the cavity
2 to include a taper, the taper matching a taper in an armrest cavity, the poured foam
3 shaped by the cavity taper so that the foam forms to match the armrest cavity taper.

1 4. The method of claim 1 wherein the support substrate includes
2 an elongated prong, and wherein the method further comprise positioning the
3 support substrate so that the elongated prong extends into the cavity, the poured
4 foam chemically bonding to the elongated prong.

1 5. The method of claim 4 wherein the elongated prong includes
2 an aperture, and the method further comprises positioning the support substrate so
3 that the aperture is positioned within the cavity, at least a portion of the poured foam
4 pouring through the aperture and chemically bonding thereto.

1 6. The method of claim 1 wherein the support substrate includes
2 a funnel, the funnel extending from one side of the substrate through to an opposite
3 side of the support substrate, and wherein the method further comprising positioning

4 the support substrate so that the poured foam pours through the funnel to reach the
5 cavity.

1 7. An armrest, the armrest comprising:
2 a first substrate defining a configuration of the armrest and including
3 a first cavity;
4 a skin covering the first substrate; and
5 an armrest bun inserted into the first cavity, the armrest bun including
6 a second substrate and a foam layer, the foam layer comprising a poured foam
7 material bonded to the second substrate.

1 8. The armrest of claim 7 wherein a portion of the first cavity
2 has a curvature, and wherein the poured foam material has a corresponding
3 curvature such that the inserted armrest bun snuggly fits to the curvature of the first
4 cavity to limit dead-spots.

1 9. The armrest of claim 7 wherein a portion of the first cavity
2 has a taper, and wherein the poured foam material has a corresponding taper such
3 that the inserted armrest bun snuggly fits to the taper of the first cavity to limit
4 dead-spots.

1 10. The armrest of claim 7 wherein the first substrate includes a
2 shoulder on an opening side of the first cavity, and wherein the second substrate
3 includes a channel such that the channel of the second substrate mates with the
4 shoulder of the first substrate to position thereto.

1 11. The armrest of claim 7 wherein the skin is flexible and
2 includes a lip extending over an opening side of the first cavity, and wherein the
3 second substrate includes a ridge such that the lip flexes over the second substrate
4 to catch on the ridge of the inserted armrest bun to position the skin thereto.

1 12. The armrest of claim 7 wherein the first substrate includes an
2 aperture proximate an opening side of the first cavity, and wherein the second

3 substrate includes a detent, the detent of the inserted armrest bun catching in the
4 aperture of the first substrate to position the second substrate thereto.

1 13. The armrest of claim 7 wherein the first substrate includes an
2 angled flange, the flange corresponding with an opening in a door panel such that
3 an angle of the flange tightens the first substrate against the door panel when
4 attached thereto to limit separation of the skin from the door panel.

1 14. The armrest of claim 7 wherein the skin is flexible and
2 includes a lip extending over an opening side of the first cavity, and wherein the
3 second substrate includes a locating face proximate the opening side of the first
4 cavity when the bun is inserted into the first cavity, the lip resting on the locating
5 face of the inserted bun if the skin is properly assembled, the lip separated from the
6 locating face if the skin is improperly assembled.

1 15. The armrest of claim 7 wherein the second substrate includes
2 an elongated prong extending laterally from an end of the second substrate into the
3 first cavity, and wherein the poured foam is chemically bond to the prong.

1 16. The armrest of claim 15 wherein the foam is chemically
2 bonded to top and bottom sides of the prong.

1 17. The armrest of claim 15 wherein the foam is chemically
2 bonded to only a top side of the prong.

1 18. An armrest bun, the bun comprising:
2 a support substrate configured for insertion into an armrest cavity;
3 and
4 a poured foam adhered to the support substrate.

1 19. The armrest bun of claim 18 wherein the foam includes a
2 curvature and a taper to closely match a curvature and a taper of the armrest cavity
3 to limit dead-spots.

- 1 20. The armrest bun of claim 18 wherein the support substrate
- 2 includes an aperture through which foam can be poured for adhering to the support
- 3 substrate.